

Shieldprotect AC60

Water-based, Anti-carbonation Paint and Protective Coating



Description

Shieldprotect AC60 is a water-based, anti-carbonation protective coating and paint, designed to provide an impermeable barrier to water and atmospheric aggressive agents such as the ingress of chloride, moisture, carbon dioxide, oxygen, and other gases while allowing water vapor to pass through without causing blistering, and providing excellent crack-bridging properties even at low temperatures.

Uses

- All concrete structures, cement boards, plasters and renders, lightweight concrete, brick and blockwork, and existing soundly adhered coatings that require protection from carbon dioxide, sulfur dioxide, chlorides, sulfates, and water.
- When UV resistance is required.
- Interior and exterior applications.
- Finish protective coating for repaired concrete or enhancement of existing concrete structures.
- Protecting reinforced concrete and masonry cement-based substrates exposed to external conditions.
- New build or renovation/retrofit work.

Characteristics / Advantages

- Easy to apply and easy to clean.
- Color stable.
- Good flexibility and crack bridging properties.
- Water-based and non-toxic.
- Low dirt pickup.
- Excellent freeze/thaw resistance.
- Water vapor is allowed to escape structures.
- Durable, excellent resistance to long-term weathering and UV effects.
- Resists algae and fungi growth.

Standard Compliance

EN 1504-2 Principles 1.3, 2.2, 8.2.

Typical Properties

Color	Available in a range of colors (white, off-white, grey)
Density (23 °C)	1.35 ± 0.05 g/ml
Solid Content	48 ± 2% by volume 60 – 65% by weight
Pot Life (23 °C)	2 hours
Touch Dry Time	1 – 2 hours /coat
Overcoating Time	2 – 4 hours
Wet Film Thickness / Coat	200 microns
Elongation at Break (ASTM D412)	> 400% at 7 days
Tensile Strength at Break (ASTM D412)	> 2.4 MPa at 7 days
VOC (US EPA 24)	< 1 g/L very low emission
Chloride Ion Permeability (RCPT) (ASTM C1202)	< 1000 coulombs Value: 164 coulombs (95% reduction) very low
<u>Compliance with EN 1504-2</u>	
Permeability to CO ₂ (EN 1062-6)	Requirement: > 50 m Value: > 70 m, Class C1
Permeability to Water Vapor (EN ISO 7783-1, 7783-2)	Requirement: s _D < 5 m Value: 0.50 m, Class I
Capillary Absorption and Permeability to Water (EN 1062-3)	Requirement: < 0.1 kg/m ² h ^{0.5} Value: < 0.02 kg/m ² h ^{0.5}
Pull-off Adhesion Strength (EN 1542)	Requirement: For crack bridging/ flexible > 1.5 MPa Value: 2.5 MPa Cohesive F.
Crack Bridging Ability (ASTM C1305)	Requirement : > 2.50 mm Value: 2.8 mm, Class A5

Application Instructions

1. Surface Preparation and Priming

The substrate must be sound and free from dust, loose materials, surface contamination, and materials that may reduce bond or prevent adhesion. Cracks greater than 0.20 mm, voids, and damage should be repaired using the appropriate product from the concrete repair range. Protect adjacent areas that are not to be coated by suitable means. Apply **Shieldprime AC** to prime and seal prepared substrates prior to the application of **Shieldprotect AC60**. Application temperature between 5 – 35 °C.

2. Mixing

Shieldprotect AC60 should be stirred prior to use to ensure a homogenous mixture. When using airless spray application equipment or in hot dry conditions, the product may be thinned using a maximum 10% by volume of clean, potable water for the first coat only.

3. Application

Shieldprotect AC60 is applied onto the prepared substrate by brush, roller, or airless spray equipment. Allow each coat to dry before overcoating and apply a minimum of 2 coats to provide an even depth of color.

4. Cleaning

All mixing and application equipment should be cleaned immediately with clean water. Hardened material should be mechanically removed.

5. Curing

Curing is not normally necessary but freshly applied material should be protected from rain, until fully dry, to ensure optimum performance.

Packaging

Shieldprotect AC60 is supplied in 25 kg buckets.

Safety Instructions

Avoid contact with the eyes and skin. In case of direct contact with the skin, wash the affected area immediately with water for several minutes. If it comes into contact with the eyes, rinse immediately with lukewarm water for at least 15 minutes and get medical advice or treatment if any emergency warning signs appear. For further information, refer to the Material Safety Data Sheet.

Shelf Life and Storage

Shieldprotect AC60 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to application.
- To ensure uniform color, use material with the same batch number. If using different batch numbers, mix their contents before use.

Technical Support

Refer to technical information, method statement, or technical support team for any inquiry.

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